Asset: Demand Shifting

November 3, 1999

Description:

Single or multi-year agreements with selected south-of-the-Delta water users to shift demands from environmentally sensitive periods to less sensitive times can be useful toward adding to the overall flexibility of the SWP/CVP system. For example, in years when CVP delivery allocations are limited due to the San Luis Reservoir low-point condition (mid August), arrangements by other South-of-Delta users to shift demands from pre low-point to post low-point can help allow higher CVP deliveries or allow additional fish protection actions.

This asset is primarily intended to enhance real-time management of the system with substantially less conflict.

Potential Flexibility: Rescheduling of 50-100 TAF/year for operational flexibility probably feasible in a given year, depending on hydrology and perceived risk.

Demand shift agreements can be for single or multiple years. Multiple year arrangements offer more flexibility to the CVP/SWP system but involve more costs and risks for the contractor who must shift to local resources for a longer period of time. By extending the time period for pay back (even one winter), it is much more likely that pay back can occur during "surplus" conditions and therefore not trigger the need for additional tools. The exception to this is when the subsequent year is very dry (no occurrence of surplus water). In this case, another tool would be needed to ensure pay back.

Project Costs:

Demand Shift arrangements that are paid back within the same year will vary in cost depending on hydrology, carryover storage and risk perceived by the contracting agency. It is reasonable to assume that south-of-Delta arrangements on the order of $25 - $75/AF could be secured during Stage 1. Multiple-year arrangements would be more expensive.

Timing:

Short-term demand-shift arrangements could be secured quickly (on the order of a couple of months)
Longer-term arrangements are more complicated, and would therefore take longer to secure.

Project Benefits:

Shifting selected demands from pre low-point to post low-point can help maintain water deliveries to some contractors while allowing additional fish protection actions. The degree of benefits would depend on the magnitude of the shift and timing of the pay-back water.

Assumed Duration of Project Benefits:

It is likely that demand-shift arrangements would be available on a year-by-year basis throughout Stage 1 in years when unusual circumstances (i.e. drought) do not exist.

Assumed Operational Restrictions:

The key restriction would be the timing of the payback water. The shorter the payback period, the less flexibility afforded. Also, it is likely that substantial penalties would be incurred if payback were not achieved on schedule.

Impacts on Others:

Demand Shift arrangements would need to be crafted to ensure no injury to others during the payback period. For example, payback water should not compete with (or reduce) other project contractual obligations, such as entitlement or interruptible water deliveries. Guarantees are needed to assure that subsequent SWP or CVP delivery allocations are not negatively impacted. In addition, payback should be complete during times of higher water quality and lower environmental sensitivity.

Permits or Other Approvals Needed:

Since Demand Shifts are completely within existing SWP and CVP contracting authorities and permits, it should be possible to implement these arrangements with approval of USBR and DWR.

Procedure for Obtaining Permits and Other Approvals:

Negotiated agreements with USBR, DWR, and the contracting entity.

Implementation Responsibility:

USBR, DWR and the contracting entity.

Necessary Cooperating Parties:

Contracting entity.